

DOUBLE DENSITY FROM MASSTOR SYSTEMS

The Masstor Advantage

Masstor Systems began developing on-line mass storage systems over ten years ago. Our unique technology - combining the dense tracking capabilities of helical-scan recording with the reliability and flexibility of magnetic tape - formed the basis for the acclaimed M860 Storage Management System.

Further refinements - sophisticated software, controller and compression technologies - have resulted in a mass storage system that knows no peer.

But more importantly, Masstor provides outstanding integrated solutions for almost any large scale storage management problem. Our systems are ideal for managing and controlling data from multiple mainframes - in any location. Thus, it's no wonder so many Fortune 500 companies around the world rely on Masstor for their large scale storage needs.

M860-D Double Density Upgrade provides twice the throughput and twice the storage density

As the third in a series of enhancements to the M860 Storage Management System, Masstor Systems' Double Density Upgrade increases the capacity of a data cartridge to 350 Megabytes, providing a Storage Module capacity of 110 Gigabytes - the highest storage density available anywhere in the mainframe marketplace today. In addition, the throughput of a single M860 Storage Controller increases to 3 Megabytes/second, opening up a whole new spectrum of additional application areas.

Used with the Compression Option the throughput and capacity are doubled again

In conjunction with the Compression Option, assuming a typical 2:1 compression ratio, the capacity of a cartridge becomes 700 Megabytes. The capacity of a fully configured M860 system is then a massive **1.7 Terabytes** of on-line storage, with an effective system throughput of 12 Megabytes per second. The storage density is truly impressive - over 17 Gigabytes per square foot of computer room floor space.

Incentive for new on-line applications

With these improved levels of capacity, and performance, new automated applications can be easily accomplished: very aggressive disk data migration and restore; incremental and full volume disk backups; extensive on-line archives; and special applications such as replacement and conversion of IBM 3850 data.

Field upgrades enhance existing investments

Existing M860 Systems can be upgraded in the field to Double Density, or Double Density with Data Compression.



Information is written onto

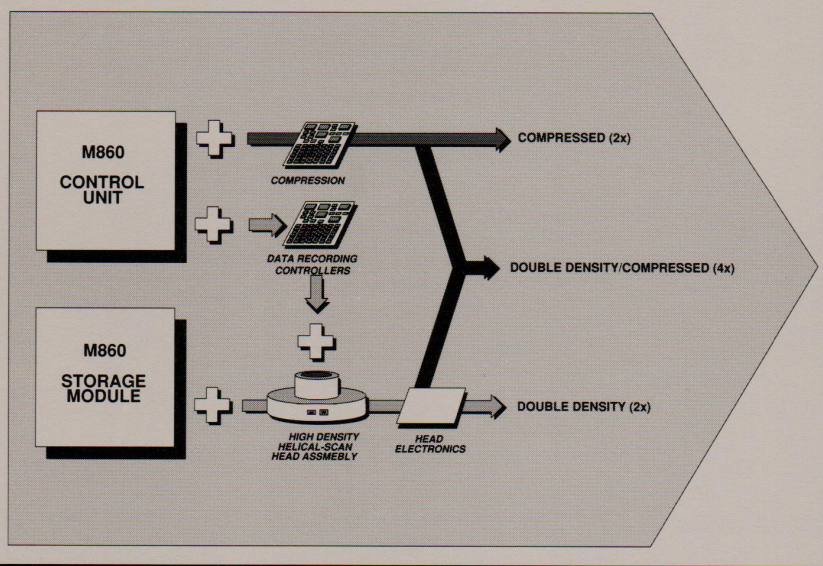
small tape cartridges which are

stored honeycomb fashion in

modular units

MASSTOR SYSTEMS

M860 PRODUCT FAMILY



How it works

Newly designed and higher performance Data Recording Controllers, along with higher density helical-scan recording are combined to double the number of data bytes which are written to the storage media.

Instead of storing approximately 6,500 bytes of user data in a single data stripe on the storage media, the Double Density Upgrade stores 13,000. In addition, the improved recording heads and DRC implement an enhanced error detection and correction encoding which further guarantees high levels of integrity while storing and reading data.

As in the original M860 Storage System, all data written to the storage media is checked as it is written by performing an immediate read-after-write operation.

The combination of these features offers very high levels of performance and data reliability.

With a doubling of the recorded data density the data throughput is also doubled since the helical-scan mechanism read or writes twice as many bytes in the same period of head rotation.

Specifications

M860 FUNCTIONAL CHARACTERISTICS	EXISTING MINIMUM M860 STORAGE SYSTEM M860	MINIMUM DOUBLE DENSITY STORAGE SYSTEM M860-D	MINIMUM DOUBLE DENSITY STORAGE SYSTEM INCLUDING COMPRESSION M860-CD
User available capacity per cartridge - Megabytes	175	350	700
User available capacity per storage module - Gigabytes	55	110	220
Data recording device (DRD)	2	2	2
Effective Data transfer rate KBytes/sec.	1,500	3,000	6,000
Data paths-simultaneous data transfer	2	2	2

Note: All figures concerning compression assume a typical compression ratio of 2:1

M860 General Functional Characteristics

Average accessor pick time - seconds	2.8
Average search/rewind time - seconds	3.2
Maximum number of cartridge mounts per hour	500

Environmental Characteristics

	M861-D Storage Module	M862-D Storage Controller
WIDTH - mm (inches)	1,270 (50)	864 (34)
DEPTH - mm (inches)	915 (36)	915 (36)
HEIGHT - mm (inches)	1,700 (67)	1,700 (67)

All Data On-Line With MASSTOR . . .

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